

COMPARISON OF TWO METHODS IN ESTIMATING THE RELATION BETWEEN DENTAL AGE AND CHRONOLOGICAL AGE

Background : Personal identification is becoming increasingly important not only in legal medicine but also in criminal investigation, identification and Genetic Research. Dental age estimation has gained acceptance because it is less variable when compared to other age indicators.

Aim : The aim of this study is to determine dental age by radiographic methods in Digital Orthopantomograph using Willem's method and in Intra oral periapical radiograph using Kvaal's method and also to find out the accuracy of two methods in determining the relation between dental age and chronological age

Materials and Methods : The study sample consisted of 75 randomly selected subjects who referred to the oral medicine and radiology department for the purpose to undergo orthodontic treatment, were divided into five groups according to age. Orthopantomograph and One Intra-oral periapical radiograph of right mandibular first molar using paralleling cone technique were taken for each patient. The dental age was determined using orthopantomographs by Willem's method and Intra oral periapical radiograph by Kvaal's method.

Results: In Willem's method, the overall mean difference between estimated DA and CA for males was 15.10 years while for females was 11.88 years. In Kvaal's method as the age increases the height of pulp chamber decreases, there was no significant difference between male and female subjects.

Conclusion : In this study, significant relation was found between estimated DA and CA in Willem method ($p=0.00$) and Kvaal's method ($p=0.05$). Both the methods seems to be applicable in estimating age of both genders.

Keywords :

Age estimation, dental radiographs, Kvaal's method, Willem's method